CALIFORNIA AIR RESOURCES BOARD

NOTICE OF PUBLIC MEETING TO RECEIVE AN INFORMATIONAL UPDATE ON ADVANCED CLEAN CARS PARTICULATE MATTER EMISSION MEASUREMENT FEASIBILITY

The Air Resources Board (ARB or Board) will conduct a public meeting at the time and place noted below to hear the Informational Update on Advanced Clean Cars Particulate Matter (PM) Emission Measurement Feasibility.

DATE: October 22, 2015

TIME: 9:00 a.m.

PLACE: South Coast Air Quality Management District
Auditorium
21865 Copley Drive
Diamond Bar, California 91765

or via Videoconference:
California Environmental Protection Agency
Air Resources Board
Byron Sher Auditorium, 2nd Floor
1001 I Street, Sacramento, California 95814

This item will be heard at a one-day meeting of the Board, which will commence at 9:00 a.m., October 22, 2015. Please consult the agenda for the meeting, which will be available at least 10 days before the meeting, to determine the order in which this item will be heard.

SUMMARY OF THE UPDATE

Particulate matter (PM) emissions from light-and medium-duty vehicles are regulated by California's Low-Emission Vehicle (LEV) program. The third-generation LEV regulations (LEV III) were approved by the Board in January 2012, as part of the Advanced Clean Cars program.[1] The LEV III regulations tighten the PM standard for passenger cars, light-duty trucks, and medium-duty passenger vehicles, in two phases. The first phase lowers the PM standard to 3 milligrams per mile (mg/mi) starting with model year (MY) 2017 vehicles. This standard is phased-in incrementally with full implementation by MY 2021. The second phase lowers the PM standard to 1 mg/mi starting with MY 2025 vehicles and is also phased-in incrementally. Full implementation of the 1 mg/mi PM standard is attained by MY 2028.

Historically, gasoline vehicles in the light-duty fleet have had very low PM emissions, typically less than 1 mg/mi, as have diesel vehicles since the incorporation of diesel

[1] For additional information, including the text of the LEV III regulations in the California Code of Regulations, title 13, see http://www.arb.ca.gov/msprog/levprog/leviii/leviii.htm.

particle filters. However, some of the newer gasoline technologies being introduced to reduce greenhouse gas emissions such as direct injection have shown to emit higher PM emissions. The 3 mg/mi and 1 mg/mi PM standards were adopted to ensure that PM emissions will not increase as a result of efforts to reduce greenhouse gas emissions. In the long term, the 1 mg/mi PM standard in 2025 allows adequate lead-time to refine technology solutions that achieve the required greenhouse gas and criteria pollutant reductions without an adverse impact on PM emissions.

At the January 2012 Board Hearing where the LEV III regulations were approved, some concerns were expressed by vehicle manufacturers over the ability to accurately measure PM at the low levels needed, especially for emissions less than 1 mg/mi to show compliance with that standard. As a result, the Board directed staff to conduct a technical investigation on the feasibility of performing robust measurement at low PM levels and report back in 2015. Since then, ARB staff, in collaboration with the United States Environmental Protection Agency (U.S. EPA), industry, and other stakeholders, has completed extensive research and various studies to verify the feasibility of measuring PM emissions at the low levels required to comply with the LEV III 1 mg/mi standard. Several of these studies were focused explicitly on the capability of the gravimetric measurement methods used to determine PM mass emissions prescribed in the federal test procedures in 40 Code of Federal Regulations (CFR) Parts 1065 and 1066. In addition, staff continues to explore and evaluate other measurement approaches, such as sizing and counting particles and determining the black carbon content in the emissions, as potential surrogates for measuring tailpipe PM pollution.

Through these extensive efforts, ARB staff has concluded that the gravimetric method specified for vehicle PM emission testing in 40 CFR Parts 1065 and 1066 is indeed suitable for measuring PM mass emissions at or below the 1 mg/mi level. This conclusion is based on evaluation of the potential sources of measurement variability, determination of the PM measurement precision, and a comparison of collocated measurements of selected sampling options described in 40 CFR Part 1066.

ARB staff will present these findings to the Board. This is an informational item only. No Board action is anticipated.

ADDITIONAL INFORMATION

Copies of the Technical Support Document for the update may be obtained from ARB's Public Information Office, 1001 I Street, First Floor, Environmental Services Center, Sacramento, California, 95814, (916) 322-2990, on October 9, 2015. The document may also be obtained from ARB's website at http://www.arb.ca.gov/msprog/levprog/leviii/leviii.htm

PUBLIC PARTICIPATION

Interested members of the public may present comments orally or in writing at the meeting and may provide comments by postal mail or by electronic submittal before the meeting. To be considered by the Board, written comments not physically submitted at

the meeting, must be received **no later than 5:00 pm, October 19, 2015,** and addressed to the following:

Postal mail: Clerk of the Board, Air Resources Board
1001 I Street, Sacramento, California 95814
Electronic submittal: http://www.arb.ca.gov/lispub/comm/bclist.php

Please note that under the California Public Records Act (Government Code section 6250 et seq.), your written and verbal comments, attachments, and associated contact information (e.g., your address, phone, email, etc.) become part of the public record and can be released to the public upon request.

ARB requests that written and email statements on this item be filed at least 10 days prior to the meeting so that ARB staff and Board members have additional time to consider each comment.

Further inquiries regarding this matter should be directed to Mr. Oliver Chang, Manager of the Aerosol Analysis and Methods Evaluation Section at (626) 459-4421 or Mr. Mike McCarthy, Vehicle Program Specialist of the Emission Compliance, Automotive Regulations and Science Division at (626) 771-3614.

SPECIAL ACCOMMODATION REQUEST

Consistent with California Government Code Section 7296.2, special accommodation or language needs may be provided for any of the following:

- An interpreter to be available at the meeting;
- Documents made available in an alternate format or another language;
- A disability-related reasonable accommodation.

To request these special accommodations or language needs, please contact the Clerk of the Board at (916) 322-5594 or by facsimile at (916) 322-3928 as soon as possible, but no later than 10 business days before the scheduled Board meeting. TTY/TDD/Speech to Speech users may dial 711 for the California Relay Service.

Consecuente con la sección 7296.2 del Código de Gobierno de California, una acomodación especial o necesidades lingüísticas pueden ser suministradas para cualquiera de los siguientes:

- Un intérprete que esté disponible en la audiencia;
- Documentos disponibles en un formato alterno u otro idioma;
- Una acomodación razonable relacionados con una incapacidad.

Para solicitar estas comodidades especiales o necesidades de otro idioma, por favor llame a la oficina del Consejo al (916) 322-5594 o envié un fax a (916) 322-3928 lo más pronto posible, pero no menos de 10 días de trabajo antes del día programado para la audiencia del Consejo. TTY/TDD/Personas que necesiten este servicio pueden marcar el 711 para el Servicio de Retransmisión de Mensajes de California.

CALIFORNIA AIR RESOURCES BOARD

Richard W. Corey
Executive Officer

Date: October 9, 2015